Integrating into family practice: the experiences of pharmacists in Ontario, Canada

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Abstract

Aims and objectives This research examines the experiences of pharmacists as they integrated and adapted to meet the drug-related needs of family practice settings.

Setting This research took place in physician-led group family medicine practices in Ontario, Canada. Each practice was in the process of integrating an on-site pharmacist.

Methods Qualitative design using monthly pharmacist narrative reports (over the first 4 months of pharmacist integration) and N-VIVO qualitative analysis software. Four independent researchers with varied professional backgrounds used descriptive thematic editing analysis to determine process and content themes. The analysis team created a draft of themes and received written feedback from each pharmacist.

Key findings Four key themes emerged describing how pharmacists experienced the first several months working in family practice: (1) feelings: emotional challenges and victories; (2) establishing and building relationships: positive and negative experiences with physicians and staff; (3) learning new skills to contribute effectively and efficiently to patient care; and (4) strategies for integration including practical demonstration of potential value to physicians to facilitate integration process.

Conclusion The pharmacists’ narratives demonstrate the challenges and rewards of the integration process. Adaptability and practical demonstration of potential utilization and benefit were crucial in physician acceptance of the pharmacist program. This description of the pharmacists’ journey will be helpful for pharmacists, managers, policy-makers, researchers and educators as more pharmacists enter this type of primary care practice.

Introduction

Team-based primary care in Canada is evolving to include pharmacists to help manage the complex drug therapy needs of our aging population. Optimizing drug therapy in a world of chronic diseases and demands to reduce medication errors requires fresh approaches, such as integrating non-dispensing pharmacists into family practices. Pharmacist involvement in primary care can be illustrated with the use of four models: (1) community pharmacists providing primary health care in the community pharmacy, (2) pharmacist-managed primary health care clinics, (3) having a pharmacist as a consultant to a number of clinics or physicians’ offices and (4) inclusion of a pharmacist as an integral member of the primary health team in a clinic setting or a physician’s office. The latter model has the potential to address many of the barriers to effective pharmaceutical care by improving access to patient information, addressing logistical communication challenges between pharmacists and physicians, enabling more efficient interventions to resolve drug-related problems and enabling the building of collaborative working relationships between pharmacists and physicians.

The evaluation described in this paper was part of an Ontario large-scale demonstration project, Integrating Family Medicine and Pharmacy to Advance Primary Care Therapeutics (IMPACT). The project was designed to provide a real-world demonstration of pharmacist integration into primary care-based office practice. Seven non-dispensing pharmacists were integrated into seven different family physician group practices from June 2004 to July 2006. The pharmacists provided the following services to optimize drug therapy:
patient medication assessments, education/academic detailing, drug information and office system enhancements. The paper by Dolovich et al. describes the practice model in detail.15

While a few Canadian university-based family medicine teaching sites have had affiliated pharmacists (either as consultants or integrated into the practice) for several years, most pharmacists have not had opportunities to train or work in the family practice environment. Integrating on-site in a clinical role as part of typical family practices, while seen as potentially beneficial to both providers and patients, is therefore a relatively new practice environment and not without some predictable and unpredictable challenges for most pharmacists.

Using team experience with previous related projects,2,3,9-13 interdisciplinary collaboration research14,15 and change-management concepts,16 we developed a series of strategies and supports, including training,17 job description, mentorship and an implementation guide, to ease pharmacists' transition into the practices and to help them conduct patient assessments efficiently and accurately.

Prior to beginning work in their sites, the pharmacists participated in a weekend training workshop with clinical simulation using standardized patients.17 The simulation experience occurred through a Family Practice Simulator that involved rotation through a series of stations allowing comprehensive standardized patient interviews, written and verbal recommendations to participating physicians, discussion of drug information questions with other professionals and in-service presentations to staff. For professional support during the integration process, each pharmacist was paired with a mentor pharmacist. The pairs met regularly and followed a series of pre-defined activities to help support the pharmacists in ongoing skill and relationship development.

Although there have been a number of studies evaluating the effectiveness of various pharmacy practice models, including extended roles for community pharmacists,18-24 the lived experiences of pharmacists initiating new interprofessional practices located physically in physician group practices have not been extensively studied. We felt it was important to examine their unique experiences as they strove to develop interprofessional collaboration skills and to work in the different family practice environment.

A model of community pharmacist–family physician relationship development that involves movement through a series of stages has been developed.15 In this model, a series of progressive stages were proposed, as follows.

0 professional awareness (involving discrete, routine exchanges),
1 professional recognition (involving efforts by the pharmacist to increase frequency and quality of interaction with the physician),
2 exploration and trial (physicians may begin referring patients to the pharmacist to test skill and competence),
3 professional relationship expansion (communication becomes more bilateral; expectations continue to evolve),
4 commitment to the collaborative working relationship (physicians view the risk to their own practice as low and the value added as high; physicians and pharmacists rely on each others' skills and knowledge consistently).

We were also interested to see whether pharmacists who were becoming integrated team members would demonstrate movement through these stages and if so, over what period of time.15

In this article we therefore examine the experience of pharmacists, captured through written monthly narrative reports, as they participated in a large-scale demonstration project, integrating into group family practices across Ontario, Canada. This evaluation aims to understand the experience of the pharmacists over the first 4 months of their integration as they attempted to succeed in this interprofessional model.

Methods

This qualitative study used monthly narrative reports (over the first 4 months of pharmacist integration) and descriptive thematic editing analysis25 to explore pharmacist experiences as they integrated into group family practices. Research ethics approval was obtained from the Research and Review Ethics Boards of Élisabeth Bruyère Research Institute and McMaster University.

Participants

The seven IMPACT pharmacists varied in their level of education (six Bachelor level, one Doctor of Pharmacy level), and in their past and concurrent work settings (hospital, long-term care and community pharmacies). Details of the structured pharmacist recruitment, selection process and demographics are described in the paper by Babcock et al.26 The pharmacists worked approximately 2.5 days per week in the family practice sites.

Family practice sites

Physician practices were recruited and selected based on their location, practice model and composition (7–15 active family physicians working as a group). The physician-led group practices included inner city, urban and semi-rural practices, all moving towards practice models that incorporated allied health professionals, patient-rostering and prevention bonuses. None had experience working with a pharmacist as an integrated professional in their practice setting.

Collection of narrative data

Pharmacists provided a detailed written narrative report at the end of each month for a period of 9 months. This paper focuses on their experience and related narratives from the first 4 months in practice, as this time span reflected the most detailed results about their overall integration experience. Subsequent reporting periods further investigated other issues, such as role formation and identity. The report consisted of a series of questions (see a sample report in Appendix 1) with the format focused on observations, interactions with physicians, and identifying areas where they felt they could apply their expertise. The questions were aimed at identifying participants' personal observations, struggles and successes. We encouraged honesty, de-emphasized
the need for precise style and grammar, and asked them to use their observation skills (carrying a notepad to make notes during the day) and to consider using personal stories from the practice they may be sharing with their mentor or other pharmacist.

Analysis

Four research team members with varied professional backgrounds (family medicine (KP), pharmacy (BF, NK), and sociology (SH)) independently read and coded all de-identified narrative reports monthly. Analysts immersed themselves in the data and over multiple readings and research-team discussions formulated codes and themes. Codes were entered into N-VIVO, a qualitative data-organisation/analysis program. The analysis team discussed similarities and discrepancies at monthly meetings. Two team members (LD, CS) acted as additional observers providing feedback to the coding team. As a member-checking exercise, we produced a written summary of the first 4 months of analysis and asked the seven participating pharmacists to provide individual and confidential written feedback to ensure they felt our findings were credible and reliable and that no important themes were missing (Appendix 2).

Results

Over the first 4 months, 28 narrative reports were analysed. Four main themes emerged from the data: feelings, establishing and building relationships, learning new skills and strategies for integration. In addition, we identified and report on key supports and constraints to integration from the narrative data.

Theme 1: feelings

Emotional challenges described by pharmacists during the early stages of integration included feeling like they were in the way, that they were imposing on the physicians’ time, that they were not processing assessments and other work fast enough, that there was some pressure to prove themselves and that they felt out of place (like an outsider). Emotional victories included feeling competent and feeling valued by physicians and patients, as well as the genuine excitement of using their skills in a new environment.

“I have realized that a lot of us (IMPACT pharmacists) share the same concerns: fear of inadequacy, not doing enough, feeling undermined, feeling overwhelmed by the workload involved in a single patient assessment...” (PH07, NR#2)

“Once the consultations started, it was more encouraging. The physicians were certainly very appreciative with the feedback I found that I got more consultations once the physician got feedback about his patient from me, that was very encouraging...” (PH04, NR#1)

Some, but not all, of the pharmacists described that their feelings of being the outsider began to subside by the fourth narrative. For a couple of them (PH01, PH03), the process was marked by a progression/regression cycle.

“I am getting a general feeling of acceptance from the docs but my perception of this changes on a day by day basis. Some days it feels that there might be a real turning point and often the next I feel somewhat uncomfortable again...” (PH01, NR#4)

Theme 2: establishing and building relationships

The pharmacists described the process they underwent in building relationships with all kinds of people in the family practice setting and beyond: with physicians, with patients, with receptionists, with nurses and with other integrating health professionals (dieticians and nurse practitioners). Both positive and negative experiences were described.

In terms of developing relationships with the physicians, some understood that realistically it would be a slow process.

“It’s baby steps for me in the integration process. I’ve had a really easy time with some of the physicians and a little ‘tougher’ time with others, which is to be expected...” (PH05, NR#2)

Positive experiences included making breakthroughs with physicians, particularly those who had shown resistance or indifference in the past. Negative experiences included encountering resistance from physicians in both subtle and not-so-subtle ways. Several noted how relationships with physicians were sparked and grew in both formal settings, such as in interprofessional education sessions, and in informal settings, such as discussions over lunch or chance meetings in the hallway.

“(Sitting down and having lunch/break with [the physicians] is good for those who take breaks) since it’s an informal time to shoot the breeze and also to get them thinking about what I do and how I can help. That’s one way I’m getting referrals from [Dr. #3] ...” (PH05, NR#2)

As time went on, more pharmacists described situations where relationships with physicians began to progress to include more two-way communication. In terms of developing relationships with other practice staff, positive instances included having offers of help from the receptionist staff, assistance and support from nurses and nurse practitioners, and developing relationships with other integrating professionals who shared their feelings. Negative experiences included resistance from receptionist and nursing staff to do extra work to assist their functions in the clinic.

“I was trying to involve the office staff... in helping me out with [the referral process] and I met with some resistance. I had not gone through the proper channels and it meant the office staff would have to do an extra task that they had not been told about and which would add on to their existing workload. Since that incident, I have done the bookings myself and hope to meet with the MDs and staff to work out a system which will benefit everyone...” (PH05, NR#1)

Theme 3: learning new skills

The pharmacists identified a number of skills that they were lacking and needed to learn on the job: completing and documenting efficient and effective comprehensive medication assessments, accepting clinical uncertainty, dealing with complex patient situations, interpreting lab results, focusing
on and prioritizing problems in assessments and written communication skills.

"I have encountered a few complicated patients: (quadriplegics, patients with liver cirrhosis and encephalitis, ...). The research involved in examining [sic] these patients' charts and getting a handle on their situation can be overwhelming. I often feel that I have to have the complete picture before I can make a proper recommendation... The other issue is that I lack a lot of the practical experience in dealing with extensive research questions... that's when I give DIRC [the Drug Information and Research Centre] a hand to help me out or call upon my mentor for advice..." (PH01, NR#1)

Perhaps most challenging was learning how to do patient assessments for the physicians. One noted that: "An ongoing issue that I am having problems with is how far to go when doing assessments of patients. It seems that everything that I look at creates more questions" (PH01, NR# 3). They were concerned about and acted towards developing a format that allowed for ease of use and clarity for the physicians. There was also genuine concern by some that they were not fast enough in doing the assessments, or that they were not doing enough assessments. However, these concerns were mitigated with optimism that they would become more efficient in this fast-paced environment, with time and practice.

"I feel like I am behind the rest of the group in terms of assessments, so I have been feeling quite guilty about this... Eventually these feelings of inadequacy will resolve over time [sic] as I become more familiar and concise with the patient assessment process." (PH07, NR#4)

The pharmacists presented creative and adaptive solutions regarding these issues. Some discussed the problem with their mentors and together formulated solutions: "With the help of my mentor, I was able to modify my writing style and outline my consult note in a different format compared to previous notes. This was well received by the physician" (PH07, NR#3). One pharmacist noticed that timing the completion of written reports to match the patient's next visit worked well. Several others noticed they could be faster if they prioritized and focused on one or two immediate problems instead of trying to solve all the medication problems at once: "Key thing for me is to realize that I have to focus on the main issue at hand, and other drug-related problems will have to be treated as secondary until there is time to address them" (PH07, NR#4). Some noted that they had to set new boundaries in conducting research, limiting themselves in how far they should delve into research in order to get the right amount of information needed to tackle a given problem: "I've cut down considerably what I've written in the last few weeks to just the pertinent points since I'm sure that no one wants to read 10 pages worth of justifications, etc." (PH05, NR#2). Others noted frustration with not immediately knowing the answers to questions and needing to deal with clinical uncertainty, especially around the area of diagnosis:

"The other challenge is making recommendations when you are not absolutely sure that the diagnosis is correct. It is simple enough when things are measurable such as blood pressure or lipids but when it is something else that requires clinical assessment skills it is less clear. You have to rely on the diagnostic skills of the physician before you can assess the appropriateness of the treatment regimen. I find that it requires lots of research either to reaffirm what you think you know or to learn something about which you previously knew very little..." (PH01, NR#1)

Theme 4: strategies for integration

Some of the pharmacists noted that the project implementation guide (containing suggestions for integration strategies and activities) was helpful for them. Site profiles (a description of the practice site including descriptions of physical layout, electronic resources, physicians, staff and populations served, as well as procedures surrounding medications and charting) were also noted as helpful in getting started in the integration process.

"I found that for integration, the practice site profile was quite helpful since it would help me remember the people I met but whose names I forget. It also gave me a snapshot of the practice before I got there. The implementation guide was also useful - especially during the self-orientation. It provided some tips to help me get started and what to do during the first few weeks..." (PH05, NR#1)

The pharmacists also described the ways that they continued to be active and creative in formulating strategies that helped them during the integration process. These included finding and making impressions on key people both inside and outside of the practice, finding the best times to approach the physicians, increasing their visibility (with signage, reminder cards, sitting in plain view, sending resident physicians a letter) and having meetings with the physicians. For example:

"I felt that it would be helpful to develop a pocket card titled 'Get the Most Out of Your IMPACT Pharmacist'. It would provide reasons to refer their patient, which may assist the resident and physician in selecting patients who would be good candidate for the referral. This card would also list other services provided by the IMPACT pharmacist and contact information..." (PH02, NR#3)

The pharmacists found they needed to practically demonstrate their value to physicians to encourage uptake of their services. They did this through both provision of individual patient assessments and case presentations. The following illustrate the success of these approaches.

"I've finally had some time to sit down with [Dr. #1] and go through some patient charts which was helpful. I also found that with [Dr. #2], I offered some suggestions for a diabetic he had and then he subsequently came to find me for two other people who I might like to speak with." (PH05, NR#2)

"I explained to the physicians the detailed process I go through during the interview, chart review, medication review, patient education, research in the problems and 'thought process'... And, subsequent to the presentation, I have had about 10 new referrals..." (PH06, NR#5)

Key supports and constraints for integration

Pharmacists identified mentors (as sounding board for ideas, as role model, as support in a time of rapid change), allied
health professionals and accommodating doctors as key supports. Regarding their project mentor, one pharmacist said the following.

"Having a mentor available to bounce ideas off of and ask for assistance was an excellent idea. It is always valuable to have another pair of eyes to objectively review your work and offer constructive suggestions for improvements." (PH07, NR#1)

Office system supports included office space promoting accessibility to physicians, technological supports (laptop, Electronic Medical Record), communication tools (e-mail, internal messaging systems, phone), and participation in practice meetings or education sessions with practice colleagues. Pharmacists also identified the IMPACT program supports (i.e. implementation guide, site profile, meet and greet sessions with physicians) as useful.

Constraints included lack of permanent, accessible, or adequate office space, difficulties in obtaining full access to communication tools, disorganized charting systems and difficulties finding time to speak with extremely busy physicians. The following reflects the frustration with lack of office space.

"On one-half day per week ... [my office] is required for physician assessments and there is no other allocated space where I may go to work or perform [my] patient assessments. It has become more apparent this past month that this is becoming an issue, which affects my ability to work in an efficient manner and to complete tasks in a timely manner." (PH02, NR#4)

Discussion

The narrative results demonstrate that the pharmacists experienced many challenges as they integrated into the primary care practices and that the process of integration and relationship building took time, effort and support. Challenges ranged from emotional issues, the need to learn new skills and the need to practically demonstrate their value to gain buy-in.

Study strengths and limitations

The results of this qualitative method are trustworthy because of efforts made to encourage open narrative reporting by the pharmacists, use of the member-checking exercise and reflexive analysis by an interprofessional review team. The results are potentially applicable in a wide range of primary care practices because of the range of types of sites and variation in the sites in terms of physician’s readiness and willingness to work with the pharmacists. The results are also useful to pharmacy practice researchers as they reflect how seven pharmacists implemented a relatively standard, well-described pharmaceutical care practice approach including patient assessment (and medication review), provider and practice support within an interprofessional practice model. Evaluation of non-standardized or poorly described pharmacists’ services has been cited as a criticism of other pharmacy practice research.29

There are some limitations to this study. The pharmacists and physician practices in this IMPACT project can be considered early adopters of a new practice model specific to Ontario, Canada. As early adopters, one might anticipate that integration would be smooth and without significant challenges. While this did not appear to be the case, one could extrapolate that later adopters might have an even more difficult experience. There could have been some self-censorship in writing the narratives as the pharmacists all knew the researchers who would be reading the reports and were in a position of being employed by those researchers for the project duration. The research team attempted to counter this by ensuring that the pharmacists knew the reports had had all names removed so that readers could not easily identify individuals and always reported information back to the pharmacists in aggregate form.

Discussion of findings

The time needed for relationship building and the various strategies employed by the pharmacists to build and expand relationships are consistent with the proposal of the model of stages of community pharmacist–family physician collaborative working-relationship development.15 The themes and quotes seem to support that professional recognition is apparent in the first couple of months of pharmacist integration and aided by pharmacist efforts to arrange for individual discussions with physicians. Increased two-way communication between pharmacists and physicians by the fourth month for several pharmacists is aligned with the attainment of the exploration and trial stage and the professional relationship expansion stage. Increasing visibility and demonstrating value were strategies that seemed to be helpful in progressing through these stages of collaborative relationship development. This is consistent with the commentary by Chen et al.29 which identifies routine face-to-face interactions and clear shared expectations as important elements of pharmacist–physician interprofessional collaboration. There did not seem to be examples that the latter stages of collaborative working relationship development were consistently achieved during the 4-month time period or that the final stage was reached at all.

At the same time, progression through these stages was clearly not linear or straightforward and was accompanied by significant emotions. The results show that integration and relationship building took several months while progression did occur, it did so in fits and starts. These results illustrate an example of how adoption of innovation occurs in health care. Greenhalgh et al.30 discuss the adoption of innovations in health care services and state that such adoption at a systems level is often messy and organic rather than a linear process.

Implications for educators, policy-makers, managers and researchers

While some of the experiences described by the pharmacists are common to starting any new job (e.g. getting to know people, orienting to the practice), the results show that different skills are required, as compared to those needed to work in other practice sites, and that pharmacists need to be prepared for the emotional challenges of becoming part of an interdisciplinary team and need to use integration strategies to work
towards developing collaborative working relationships with family physicians. This information could be useful for both pharmacy educators involved in pharmacy curriculum or continuous professional development, and managers looking to incorporate approaches to help students and pharmacists prepare for working in family practice.

An important lesson learned is that it can take several months to move through stages of collaborative working-relationship development: to facilitate patient referrals, develop relationships, learn how to work within teams and communicate with physicians effectively. This has implications for policy-makers, managers and researchers setting expectations for pharmacists beginning to work in this model and for providing supports to them (as outlined below). The 4-month time period needed to reach the middle stages of both physician–pharmacist collaborative working relationship development and interdisciplinary team development suggests the need for care taken in setting time goals for measuring the impact of an integrated model. The best estimate of the effectiveness of an integrated model would ideally be measured after enough time has passed for higher stages of collaborative working relationships to have developed and for the model to have reached a stage of stability. This recommendation is consistent with the work by Wong31 applying the Medical Research Council framework to the development and evaluation of randomized controlled trials for pharmaceutical care. They identify the importance, at the exploratory trial phase, of considering the ‘learning curve’ effect and ensuring that the intervention be delivered at a consistent and optimum level, before attempting to measure the effect.

The data suggested several key supports for the integrating pharmacists. Among those highlighted by the pharmacists in their narrative reports was the importance of having mentors. These individuals assisted with skill development, role modelling and coaching, particularly around the emotional needs of the integrating pharmacists. While the training program and family practice simulator have also been identified as important preparation to entering family practice, it was clear that ongoing mentorship was important to help address various learning needs as they arose. The project team provided technological supports, as well as an implementation guide featuring a series of suggested activities that the pharmacists identified as useful in their integration attempts. Others coordinating similar pharmacist integration into primary care could benefit from adopting these approaches and supports.

Conclusion

In the IMPACT project, pharmacists needed time to expand their knowledge and skills to address family practice needs. Mentoring and guided integration activities were helpful to facilitate integration into family practice but pharmacists still experienced a variety of emotions in the early months. In order to be successful in gaining patient referrals and feeling part of the team, pharmacists needed to be visible, communicate well and be flexible and innovative. Once they demonstrated their value, they felt that buy-in from physicians happened.

The pharmacists’ description of their journey will help pharmacists, managers, policy-makers, researchers and educators understand the needs and supports that facilitate uptake of this pharmacist program innovation. With the recent surge in opportunities for pharmacists to assist with optimizing drug therapy in primary care in Canada and elsewhere, the lessons learned from this experience will be widely applicable.

Postscript

In the spirit of sharing, the research team developed an IMPACT Pharmacist Program Toolkit, based on the experiences of the investigators and participants, and made it available to new Family Health Teams in Ontario (see the resource downloads section of www.impactteam.info). A Canadian Pharmacists’ Association and Canadian Society of Hospital Pharmacists’ Primary Care Pharmacists’ Professional Specialties Network has also been formed and is actively working towards identifying and meeting educational needs as well as providing a forum for the expanding number of Canadian pharmacists working in primary care to connect with each other.

References


Appendix 1 Sample narrative report questions

• Describe your personal observations of the office practice and how your proposed or current pharmacist activities may enhance or hinder the current practice system.

• Describe specific experiences (both negative and positive) regarding the specific implementation activities during your integration process—gaining personal understanding and professional recognition within the practice. Please highlight your personal approach and ideas for integration, in the short term and the long term.

• Describe experiences that illustrate significant challenges and/or barriers that you have encountered (areas to think about would include your interaction with physicians, office staff and patients).

• Use this section to relate any other 'lessons learned', success stories, discuss any feedback you have received or list any items or concerns that would be worth discussing with the other pharmacists.

Appendix 2 Member-checking exercise questions

These results reflect our preliminary findings from analysing the first four narrative reports. Reflecting on that time and your writings for that period:

a. what surprised you most in the report?

b. what themes or points in the report ring true?

c. what themes or points do you feel were not clearly or fairly described?

d. would you have summarized your experience differently?